

Date: Monday, 2/27/2006 4:22:11 PM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : SADDLE FITTING, AFT (OUTBOARD/INBOARD)
Job Number : 25998	
Estimate Number : 10533	
P.O. Number : N/A	Part Number : D2573
This Issue : 2/27/2006 S.O. No. : N/A	Drawing Number : D2573 REV E
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : MACHINED PARTS	Drawing Revision : E
Previous Run : 25861	Material : N/A
Written By : <u>SEE COMMENT BELOW</u>	Due Date : 3/15/2006 Qty: 8 Um: Each
Checked & Approved By : <u>06.02.28</u>	
Comment : Est: 1 As Per RevE 06-01-27 JLM	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	D6101007	7075-T7351 8.25X7.75X2.5



Comment: Qty.: 1.0000 Each(s)/Unit Total : 8.0000 Each(s)  
 7075-T7351 8.25X7.75X2.5  
 Make from D6101-007 billet for D2573  
 Ensure that grain is along 7.75" length  
 Batch No: B24893

(2)

5.6 06103109

2.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1  
 Program Batch No. 25998 Double check by: MS

1-Machine Step No 1 per Folio FA051 and inspect per attached Dimension Sheets  
 2-Machine Step No 2 per Folio FA051 and inspect per attached Dimension Sheets  
 3-Machine Step No 3 per Folio FA051 and inspect per attached Dimension Sheets  
 4-Deburr and remove all machining marks  
 5-Tumble to remove sharp edges.

5.6 06103111 8

3.0	MILLING CONV.	CONVENTIONAL MILLING MACHINE
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Comment: CONVENTIONAL MILLING MACHINE  
 Machine keyway as per dwg D2573 & D2574

5.6 06103111 8

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

5.6 06103111 8

REFERENCE ONLY

Date: Monday, 2/27/2006 4:22:11 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SADDLE FITTING, AFT (OUTBOARD/INBOARD)

Job Number: 25998

Part Number: D2573

Job Number:



Seq. #:	Machine Or Operation:	Description :
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5.0	QC8	SECOND CHECK
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Comment: SECOND CHECK

SA 06.03.13

(8)

6.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

FL 06 03 13

(8)

7.0	POWDER COATING	POWDER COATING
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Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

DL 06/03/14

(8)

8.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION
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Comment: INSPECT POWDER COAT

M

06 03 15

(8)

9.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 480

06/03/16

(8)

10.0	DC	DOCUMENT CONTROL
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Comment: DOCUMENT CONTROL

Inspection Level 21

06/03/16

(8)

Job Completion



06/03/16

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 25998
<b>Description:</b> Saddle, Aft Outboard	<b>Part Number:</b> D2573
<b>Inspection Dwg:</b> D2573 Rev. E	<b>Page 1 of 1</b>

Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.438	0.443	DT8682	0.438	0.438	0.438	0.438		
B	1.745	1.755		1.747	1.747	1.747	1.747		
C	3.495	3.505		3.500	3.501	3.500	3.499		
D	1.745	1.755		1.747	1.747	1.747	1.747		
E	7.990	8.010		8.002	8.003	8.002	8.002		
F	0.490	0.510		0.501	0.501	0.500	0.500		
G	0.257	0.262	DT8683	0.257	0.257	0.257	0.257		
H	0.375	0.380	DT8684	0.375	0.375	0.375	0.375		
I	0.490	0.510		0.499	0.498	0.498	0.497		
J	1.174	1.184		1.178	1.177	1.177	1.177		
K	0.558	0.578		0.569	0.568	0.569	0.569		
L	1.174	1.184		1.178	1.178	1.177	1.177		
M	1.365	1.375		1.369	1.369	1.370	1.371		
N	2.495	2.505		2.500	2.499	2.498	2.499		
O	4.119	4.129		4.122	4.122	4.122	4.121		
P	0.115	0.135		0.128	0.127	0.129	0.130		
Q	0.115	0.135		0.130	0.130	0.130	0.130		
R	0.240	0.260		0.249	0.248	0.247	0.246		
S	0.115	0.135		0.130	0.130	0.130	0.130		
T	0.178	0.198		0.188	0.188	0.188	0.188		
U	3.210	3.250		3.222	3.221	3.220	3.221		
V	0.230	0.250		0.239	0.239	0.239	0.239		
W	0.115	0.135		0.127	0.128	0.127	0.127		
X	0.308	0.313		0.310	0.310	0.310	0.310		
Y	0.760	0.765		0.760	0.760	0.760	0.760		
Z	0.352	0.372		0.362	0.362	0.361	0.362		
AA	0.470	0.530		0.500	0.500	0.500	0.500		
AB	0.615	0.635		0.629	0.628	0.627	0.628		
AC	0.053	0.073		0.063	0.063	0.063	0.063		
AD	0.240	0.260		0.245	0.246	0.245	0.245		
AE	1.500	1.520		1.515	1.514	1.513	1.514		
AF	0.115	0.135		0.130	0.130	0.130	0.130		
AG	0.240	0.280		0.260	0.260	0.260	0.260		
AH	0.240	0.260		0.249	0.249	0.248	0.249		
AI	2.000	2.020		2.005	2.000	2.000	2.000		
AJ	0.023	0.043		0.030	0.030	0.030	0.030		
Accept/Reject									

Measured by: S.G.  
Date: 06/03/12

Audited by: SD  
Date: 06/03/12

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.26	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	<b>25998</b>
<b>Description:</b> Saddle, Aft Outboard	<b>Part Number:</b>	<b>D2573</b>
<b>Inspection Dwg:</b> D2573 Rev. E		<b>Page 1 of 1</b>

Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.438	0.443	DT8682	0.438	0.438	0.438	0.438		
B	1.745	1.755		1.747	1.747	1.747	1.748		
C	3.495	3.505		3.498	3.498	3.498	3.498		
D	1.745	1.755		1.747	1.747	1.747	1.747		
E	7.990	8.010		8.003	8.003	8.003	8.003		
F	0.490	0.510		0.501	0.500	0.499	0.499		
G	0.257	0.262	DT8683	0.257	0.257	0.257	0.257		
H	0.375	0.380	DT8684	0.375	0.375	0.375	0.375		
I	0.490	0.510		0.499	0.499	0.498	0.498		
J	1.174	1.184		1.177	1.177	1.177	1.178		
K	0.558	0.578		0.568	0.569	0.569	0.568		
L	1.174	1.184		1.177	1.177	1.176	1.176		
M	1.365	1.375		1.371	1.371	1.372	1.371		
N	2.495	2.505		2.499	2.499	2.498	2.498		
O	4.119	4.129		4.121	4.121	4.121	4.121		
P	0.115	0.135		0.120	0.121	0.122	0.122		
Q	0.115	0.135		0.130	0.130	0.130	0.130		
R	0.240	0.260		0.245	0.245	0.245	0.246		
S	0.115	0.135		0.127	0.126	0.127	0.128		
T	0.178	0.198		0.188	0.188	0.188	0.188		
U	3.210	3.250		3.220	3.220	3.220	3.220		
V	0.230	0.250		0.244	0.241	0.242	0.244		
W	0.115	0.135		0.125	0.127	0.127	0.127		
X	0.308	0.313		0.310	0.310	0.310	0.310		
Y	0.760	0.765		0.760	0.760	0.760	0.760		
Z	0.352	0.372		0.362	0.362	0.362	0.362		
AA	0.470	0.530		0.500	0.500	0.500	0.500		
AB	0.615	0.635		0.628	0.628	0.628	0.628		
AC	0.053	0.073		0.063	0.063	0.063	0.063		
AD	0.240	0.260		0.241	0.242	0.242	0.242		
AE	1.500	1.520		1.512	1.513	1.513	1.513		
AF	0.115	0.135		0.130	0.130	0.130	0.130		
AG	0.240	0.280		0.260	0.260	0.260	0.260		
AH	0.240	0.260		0.250	0.250	0.249	0.249		
AI	2.000	2.020		2.002	2.003	2.003	2.002		
AJ	0.023	0.043		0.030	0.030	0.030	0.030		
Accept/Reject									

Measured by: S.G.  
Date: 06/03/13




Audited by: SA  
Date: 06.03.13

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.26	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

05.12.06

MATERIAL: 7075-T7351 (QQ-A-250/12)  
(REF DART SPEC. D6102-001)  
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1  
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER  
DART QSI 005 4.3  
BREAK ALL SHARP EDGES 0.010 TO 0.020  
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

- 1 ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX DEPTH OF 0.010
- 2 ENGRAVE DART LOGO TO MAX DEPTH OF 0.015 WITH MIN RAD 0.125
- 3 CHAMFER 0.063" x 45° AROUND THIS SURFACE (TYPICAL 2 PLACES)
- 4 CHAMFER 0.063" x 45° ALL AROUND
- 5 CHAMFER 0.033" x 45° (SEE DETAIL C)

E	05.07.13	ADD CHAMFER ON RIDGE NOTE 5
D	02.09.06	ADD RIDGES; TIGHTEN TOLERANCES
C	99.10.22	INCORP. DEO 9123/9079/9102 ADD DIMENSIONS PER TSR A1177
B	96.12.02	ADD GRAIN DIR., 0.438 WAS 0.425
A	96.09.16	NEW ISSUE
DESIGN		DRAWN BY
DS	PH	
DART AEROSPACE LTD.		
HARWICKSBURY, ONTARIO, CANADA		
CHECKED	APPROVED	DRAWING NO.
		D2573
DATE	TITLE	REV.
05.07.13	OUTER AFT SADDLE	SHEET 1 OF
		SCALE

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DART AEROSPACE LTD.

SECTION A-A

DETAIL C  
SCALE 4:3

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT

WORK ORDER  
NO. 25998

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☒ DQA: LD Date: 26/03/16  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Monday, 2/27/2006 4:22:11 PM  
User: Kim Johnston

# Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : SADDLE FITTING, AFT (OUTBOARD/INBOARD)
<b>Job Number</b> : 25998	
<b>Estimate Number</b> : 10533	
<b>P.O. Number</b> :	<b>Part Number</b> : D2573
<b>This Issue</b> : 2/27/2006 <b>S.O. No.</b> :	<b>Drawing Number</b> : D2573 REV E
<b>Prsht Rev.</b> : NC	<b>Project Number</b> : N/A
<b>First Issue</b> : / / <b>Type</b> : MACHINED PARTS	<b>Drawing Revision</b> : E
<b>Previous Run</b> : 25861	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 3/15/2006 <b>Qty:</b> 8 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> : <u>KA 06.02.28</u>	
<b>Comment</b> : Est: I As Per RevE 06-01-27 JLM	

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
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1.0	D6101007	7075-T7351 8.25X7.75X2.5
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**Comment:** Qty.: 1.0000 Each(s)/Unit    Total : 8.0000 Each(s)  
7075-T7351 8.25X7.75X2.5  
Make from D6101-007 billet for D2573  
Ensure that grain is along 7.75" length  
Batch No: B24893

*W 06.03.06*

*S 06/03/09*

2.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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**Comment:** HAAS CNC VERTICAL MACHINING #1  
Program Batch No. 25998 Double check by: MS

1-Machine Step No 1 per Folio FA051 and inspect per attached Dimension Sheets  
2-Machine Step No 2 per Folio FA051 and inspect per attached Dimension Sheets  
3-Machine Step No 3 per Folio FA051 and inspect per attached Dimension Sheets  
4-Deburr and remove all machining marks  
5-Tumble to remove sharp edges.

*J.G 06/03/13*

3.0	MILLING CONV.	CONVENTIONAL MILLING MACHINE
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**Comment:** CONVENTIONAL MILLING MACHINE  
Machine keyway as per dwg D2573 & D2574

*J.G 06/03/13*

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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**Comment:** INSPECT PARTS AS THEY COME OFF MACHINE

*J.G 06/03/13*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Monday, 2/27/2006 4:22:11 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SADDLE FITTING, AFT (OUTBOARD/INBOARD)

Job Number: 25998

Part Number: D2573

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

7.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

10.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

Job Completion



**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 25998
<b>Description:</b> Saddle, Aft Outboard	<b>Part Number:</b> D2573
<b>Inspection Dwg:</b> D2573 Rev. E	Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

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X	0.308	0.313		0.310	0.310	0.310	0.310		
Y	0.760	0.765		0.760	0.760	0.760	0.760		
Z	0.352	0.372							
AA	0.470	0.530		0.510	0.510	0.510	0.510		
AB	0.615	0.635							
AC	0.053	0.073		0.063	0.063	0.063	0.063		
AD	0.240	0.260							
AE	1.500	1.520							
AF	0.115	0.135		0.130	0.130	0.130	0.130		
AG	0.240	0.280		0.260	0.260	0.260	0.260		
AH	0.240	0.260							
AI	2.000	2.020							
AJ	0.023	0.043		0.030	0.030	0.030	0.030		
Accept/Reject									

Measured by:	
Date:	

Audited by:	
Date:	

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.26	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	



<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	25998
<b>Description:</b> Saddle, Aft Outboard	<b>Part Number:</b>	D2573
<b>Inspection Dwg:</b> D2573 Rev. E		Page 1 of 1

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AD	0.240	0.260							
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AG	0.240	0.280		0.260	0.260	0.260	0.260		
AH	0.240	0.260							
AI	2.000	2.020							
AJ	0.023	0.043		0.030	0.030	0.030	0.030		
Accept/Reject									

Measured by:	
Date:	

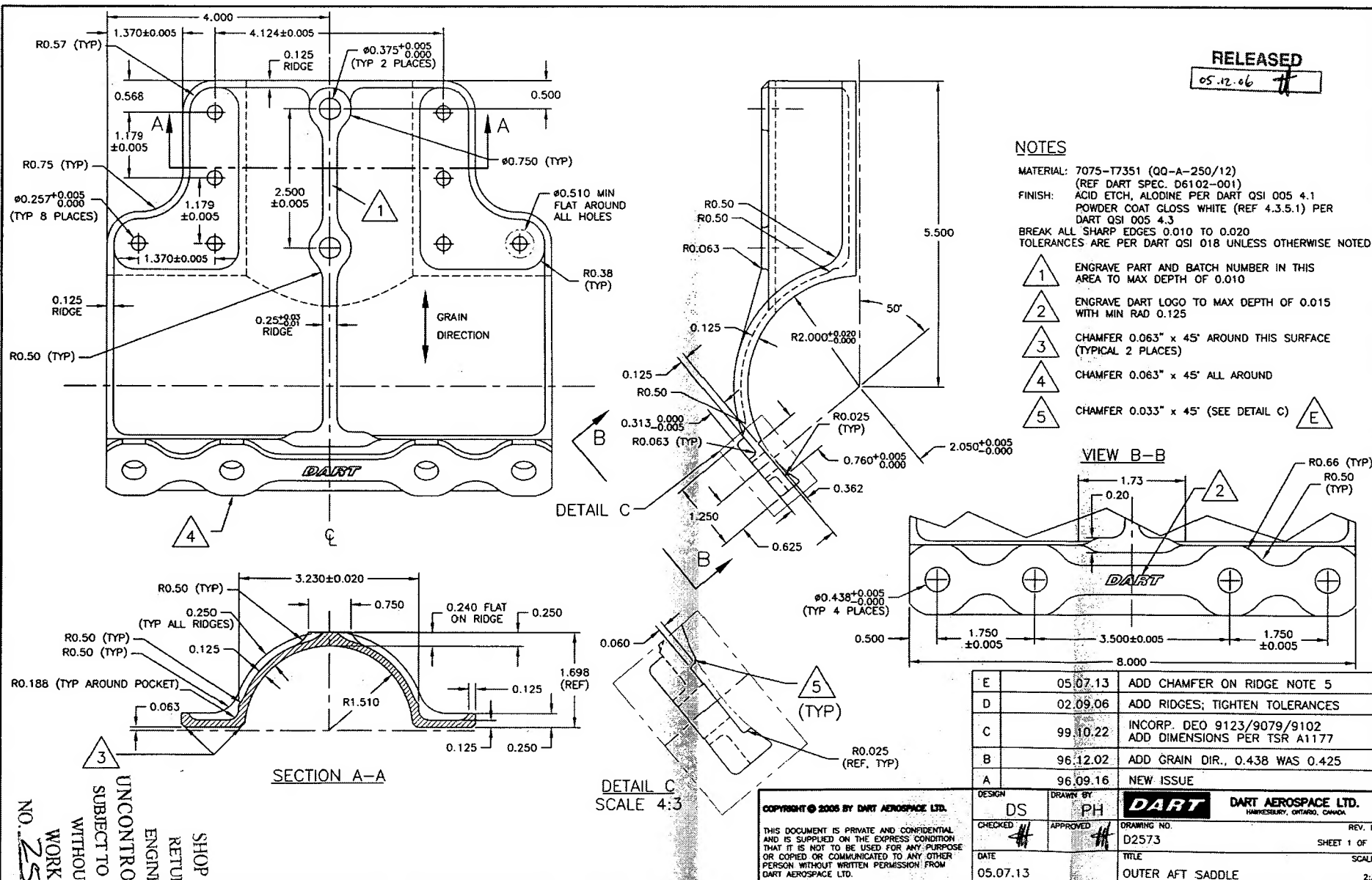
Audited by:	
Date:	

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.26	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	



RELEASED

05.12.06 #



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